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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,205	07/12/2003	Anthony James Francis Natoli	AJFN0003	4182
32818	7590	09/27/2004	EXAMINER	
ANTHONY J. NATOLI P.O. BOX 579 BETHPAGE, NY 11714			LESPERANCE, JEAN E	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/618,205

Applicant(s)

NATOLI, ANTHONY JAMES  
FRANCIS

Examiner

Jean E Lesperance

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 7-12-2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 41-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 41-60 are presented for examination.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 41-60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 41, 50, and 59, the limitation "selecting a key group including a desired VR key among a plurality of VR keys displayed on a VR keyboard on a display viewable by the user" was never described mentioned in the specification. Correction is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 41, 50, and 59, the limitation "selecting a

key group including a desired VR key among a plurality of VR keys displayed on a VR keyboard on a display viewable by the user” is not clear and specific. How can you select a key group including a desired VR key among a plurality of VR keys displayed on a VR keyboard on a display viewable by the user? Clarification is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 41-60 are rejected under 35 U.S.C. 102(e) as being unpatentable over US Patent # 5,977,935 (“Yasukawa et al.”).

As to claims 41 and 50, Yasukawa et al. teach the input device Fig.15 (150) is input to the computer 3 by selecting a key among a plurality of keys on a virtual keyboard display screen (153) corresponding to selecting a key group including a desired VR key among a plurality of VR keys displayed on a VR keyboard on a display viewable by the user, with the key group corresponding to information that the user desires to input by moving the fingers (150) or the predetermined body part; and the head mounted display device 2 enables the simultaneous display of that input information such as the conditions of the input device 150 such as a keyboard or virtual

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keyboard or a data glove which is output by the computer 3 (column 16, lines 37-41) corresponding to generating a virtual keyboard with the key group on the display with the virtual keyboard viewable to the user and having an appearance which represents the selection of the desired key on the virtual keyboard; the head mounted display device Fig.15 (2) indicates what keys can be currently used or selected for input and what key the operator is touching (column 16, lines 43-45) corresponding to wherein the information corresponding to the selected key is determined as input information;

As to claims 42 and 51, Yasukawa et al. teach the virtual keyboard Fig.16 (153) has a predetermined pattern and it is included in an information screen embodied (display 152) and computer Fig.15 (3) sends display information (software) viewable by the head mounted display where the operator can view a virtual keyboard output on the computer 3 corresponding to wherein the key group has a predetermined pattern and is included in an information screen embodied and virtually displayed in software, and the information screen has a plurality of key groups.

As to claims 43 and 52, Yasukawa et al. teach the input device Fig.15 (150) corresponding to the predetermined body part is a portion of a hand of the user.

As to claims 44 and 53, Yasukawa et al. teach the input device Fig.15 (150) where the input device is a hand which inherently includes the hand is selected from the group consisting of a thumb, an index finger, a middle finger, a ring finger, o a little finger.

As to claims 45-46 and 54-55, Yasukawa et al. teach the input device fig.15 (150) which inherently has a sensor for sensing the motion of the portion of the hand is

substantially adjacent to the portion of the hand and to the portion of the hand selected from the group consisting of a thumb, an index finger, a middle finger, a ring finger, or a little finger or (input device 150).

As to claims 47 and 56, Yasukawa et al. teach the computer Fig.15 (3) that includes a monitor (see figure 16) and the computer 3 is adjacent to the body of the operator.

As to claims 48-49 and 57-58, Yasukawa et al. teach a virtual keyboard Fig.16 (153) which inherently includes the keys correspond to characters and functions and it is inherent for certain keyboard to have characters only.

As to claims 59 and 60, Yasukawa et al. teach a display screen Fig.16 (152) associated to the user, the display device 152 being responsive like in Fig.3 (51) where multiple images are generating which may represent virtual keyboard and keyboard; the input device Fig.15 (150) for detecting the motion associated with the user or operator (See rejection of claims 41 and 50); the computer Fig.15 (3) corresponding to a processor connecting to the display device (152) and the head mounted display device 2 enables the simultaneous display of that input information such as the conditions of the input device 150 such as a keyboard or virtual keyboard or a data glove which is output by the computer 3 (column 16, lines 37-41) operating a virtual-keyboard generating program for providing the first image data to the display device; (See Fig.3 (51) wherein the display 51 is responsive to the motion image data for generating a second image simulating the physical keyboard having the plurality of physical keys to represent the physical keyboard having a second appearance.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (703) 308-6413. The examiner can normally be reached on from Monday to Friday between 8:00AM and 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, (703) 305-4938, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks Washington, D.C. 20231

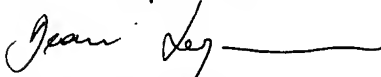
**or faxed to:**

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

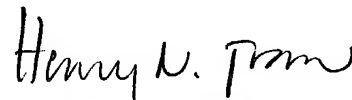
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Date 9-23-2004

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**HENRY N. TRAN  
PRIMARY EXAMINER**